

Amendments to the Specification

Please replace the last paragraph on page 4, line 10 with the following amended paragraph:

Figs. 2A and 2B are assembled views of the fuel pump illustrating the an open channel construction for spring pins used to align the parts;

Please replace the last paragraph on page 5 with the following amended paragraph:

Inlet section 12 comprises an end cap 13 which is of a molded plastic material and has formed therein a fuel inlet 20 by which fuel at a low pressure is drawn into the pump from a fuel tank (not shown). Pump section 14a comprises end cap 13 and a port plate 22a. Pump section 14b includes also includes port plate 22a, and a casing 22b. The port plate 22a and casing 22b are each formed of a molded plastic material and are arranged in a stacked configuration with port plate 22a mounted between end cap 13 and casing 22b. Each pump section further includes an impeller, 24a, 24b respectively. The port plate 22a and casing 22b are each formed with central cavities in which the respective impellers 24a, 24b are rotatably installed, the impellers each being mounted on a shaft 26 of the pump motor 17. As shown in Figs. 3A and 3B, casing 22b is first fitted over shaft 26, then impeller 24b is mounted on the shaft 26. Next, an impeller drive 28 is fitted onto the shaft. Port plate 22a is then fitted over shaft 26, and impeller 24a is then mounted onto the shaft. Finally, end cap 13 is fitted onto the outer end of the shaft, the end cap having a housing 30 formed therein in which the outer end of shaft 26 is received.

Please replace the paragraph on page 6, line 8 with the following amended paragraph:

Operation of a two-stage turbine pump is known in the art. Fuel is drawn into the pump through inlet 20 in and end cap 13, and drawn to the first and lower pressure stage of the pump by impeller 24a. From this first stage, the fuel is

drawn into the higher pressure second pump stage by impeller 24b. Port plate 22a has a flow path 23 formed therein (see Fig. 3A) by which fuels flows from the first to the second pump stage. Similarly, casing 22b has a flow path formed therein (not shown) by which high pressure fuel is directed from the second pump stage to pump outlet 19 via an outlet 21 in the casing. Tabs 31 are formed on the outer margin of casing 22b, the tabs fitting in slots 16s in housing 16 to aid in assembly of the fuel pump.

Please replace the first and second full paragraphs on page 7 with the following amended paragraphs:

Because it is important to not cause cracking in these components after the pump is assembled, the present invention includes open channels formed in the sidewall of end plate cap 13 and port plate 22a, and casing 22b for receiving the pins 32. In Fig. 5, an open sided pocket or recess 36 is shown to be formed in end plate cap 13. A similar open sided pocket or recess 38 is formed in casing 22b (Figs. 2a and 2b). Each pocket 36, 38 comprises a semi-circular opening formed in the outer wall of the end cap 13 or port plate 22a respectively, the opening extending from an inner face 40 of end cap 13, or an inner face 42 of casing 22b, into the body of the respective part (Figs. 3a and 3b). In each part, the depth of the pocket 36, 38 is approximately one-half the thickness of the part; while, the diameter of the pocket generally corresponds to that of the spring pin 32.

Port plate 22a has opposed channels 44a, 44b (Figs. 2, 3 and 6) formed therein through which the pins 32 are inserted when fuel pump 10 is assembled. The diameter of each channel 44a, 44b corresponds to that of the spring pin 32 inserted through the channel. Both channels open into the outer face or sidewall of the port plate 22a. Thus, while the channels 44a, 44b facilitate insertion of the spring pins 32 for accurately aligning the pump components; they encapsulate the spring pins, while the pockets 36, 38 do not encapsulate them. Channels 44a, 44b in the outer wall of port plate 22a have the advantage of allowing forces transmitted through the spring pins 32, when shocks and vibrations occur, to

dissipate through the end cap 13 and port plate 22a, rather than cracking radially to the outside of the port plate. Preferably the open channels formed in end cap 13, port plate 22a, and casing 22b, for receiving the spring pins 32, are approximately five degrees (5°) less than being diametrically opposite each other. This orientation facilitates correct alignment of the parts during assembly.

Please replace the first and second full paragraphs on page 8 with the following amended paragraphs:

During manufacture of the fuel pump, the spring pins 32 are first installed in the respective channels in port plate 22a. The pins 32 are inserted so that the ends of the pins extend from opposite sides of the port plate 22a. Next, the various components comprising the two stages of the turbine pump 10 are mounted on motor shaft 26. Casing 22b is first rotated until the tabs 31 formed on the outer face of the port plate 22a align with the slots 16s in the housing 16 in which pump motor 17 is housed. Housing 16 and casing 22b are then correctly aligned. Next, impeller 24b is installed on shaft 26, with impeller drive 28 then being fitted onto the shaft. At this time, the inner ends of the spring pins 32 are inserted into the respective pockets 38 formed in the casing 22b. Next, impeller 24a is mounted on shaft 26. End cap 13 is then rotated until the pockets 36 formed in the end cap align with the channels 44a, 44b in port plate 22a. When they-are-Upon alignment, the end cap 13 is properly held in alignment with port plate 22a for the outer ends of the spring pins 32 received in the pockets 36.

The spring pins 32 are slightly compressed when they are installed in port plate 22a. During the final stages of pump assembly, when an outer shell (not shown) of pump 10 is fitted into place, the expansion force exerted by the springs 32 against the sidewalls of the channels 44a, 44b and the slip fit of the pins with the pockets 36, 38 hold these components tightly together so to retain the proper alignment between the pump inlet, the first and second pump stages, and the pump outlet. Importantly, because the channels 44a, 44b and pockets 36, 38 are open sided rather than completely enclosing and encapsulating the spring pins 32, forces which otherwise could damage the end cap 13 and port plates 22a are

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readily distributed through these parts and not concentrated about the channels where damage could occur.